The Knowledge Bank at The Ohio State University

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Highway travel no longer necessitates miles of weary travel over unpaved roads and across improvised bridges and stream fords. . . . Our state is now proud of some of the best highways and bridges in the country. . . . The result of the untiring efforts of our modern engineers . . . . . .

OHIO'S OWN

By ELBERT J. BOEBINGER

V. THE STATE HIGHWAY DEPARTMENT

AS we go speeding over the highways at 60 and 70 miles per hour we seldom realize that highway building on a large scale is a recently developed art, that even up until 1900 the roads in this great state were nothing to write home about.

Incredible as it may seem, Ohio has been in the mud well into the past century; the state has been building roads since 1806. Shortly after Ohio became a state, the legislature began worrying about the need for roads through the wilderness. With limited funds of its own and additional money donated by the federal government, the state started building crude roads which later became some of our finest paved highways.

Labor for these roads was furnished by the local residents. A law was in effect that every able-bodied man in the state was required to work two days a year on the roads by hand or one day with a team of horses. A citizen could be exempted from this work by hiring someone to put in his time.

Part of the money for road building and maintenance was obtained from the state treasury, but most of it was secured from toll turnpikes and toll bridges which operated under authority of the state legislature and which collected fees from those using them. The funds thus obtained were very limited and not nearly enough roads, which were nothing more than mud trails, could be built.

In 1817 the federal government began the construction of the National Highway, a road the nation hoped would extend from the east coast as far west as the Mississippi River. Twenty years after work had been started on this road it was completed as far west as Ohio, but work on it ceased at this point as the coming of the railroad discontinued the need for highways and the highway builders believed that a nation covered with railroads would never need highways. Accordingly, work on the National Highway was stopped, believing that it was a needless waste of effort. The folly of this reasoning was later realized and work on road construction was begun on a large scale. Even before the coming of the automobile Ohio became road conscious and the continual agitation of the public caused the legislature to provide for the organization of the state's first highway department in 1904.

With the coming of the automobile Ohio's road system has grown to the extent that there are now more than 14,000 miles of approved highways in the state system and, including the county systems, more than 90,000 miles of roads.

When Ohio first started building roads, only a few hundred dollars a year were spent. At the present time approximately $35,000,000 is spent annually and the total investment in roads since 1904 is $551,000,000.

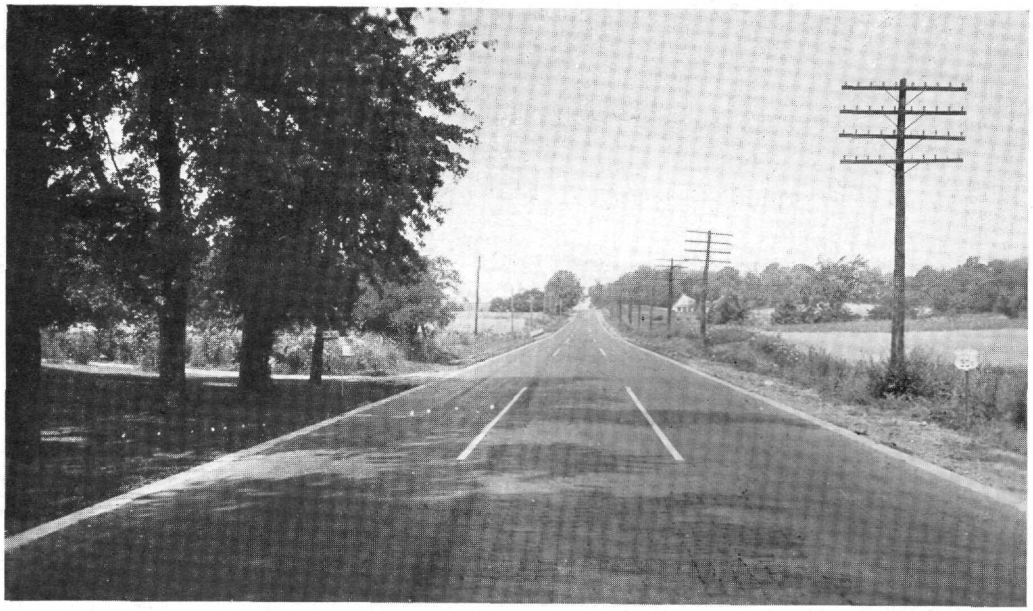
The funds for highway improvements are obtained from gasoline taxes, motor vehicle registration fees, motor bus fees, and funds from the federal government, the latter to be used for state highways only.

Ohio is blessed with practically all kinds of road building materials and the widespread prevalence of these materials has resulted in the construction of a number of different types of pavement. Macadam is by far the most used material for road surfaces. This, obviously, is because it is a cheap surfacing, but it is also used because it forms a good surface. It is one of the earliest materials used and many of the first highways built are constructed of macadam and still in service. There are in all more than 50,000 miles of macadam roads in the state. Next in point of mileage is concrete with a total of 3,543 miles. Concrete is being used more and more each year as it holds up well under the terrific pounding of present day traffic.

Ohio has more miles of brick pavement than any other state in the country, one reason being the extensive brick industry in southern and eastern Ohio. Brick highways are more costly than macadam or concrete but are the most durable. There are over 1,600 miles of brick highways and in much of the new construction bricks are used on hillsides, curves, and bridge surfaces because of their non-skid qualities.

Ohio has been building roads longer than many other states and some of the first roads built are not actually worn out but are too narrow for safety with heavy and speedy traffic day and night. Any surface less than 20 feet wide is considered unsafe and the Highway Department faces the task of widening many of the old roads that were 16 feet wide and sometimes less.

When highways were first built, they followed trails and paths of least resistance. In those days speeds of not more than 20 to 30 miles an hour were comparatively safe on roads with sharp curves and steep, irregular grades. Today the problem is quite different, curves are being straightened, and large cuts and fills to lessen grades are being made. These cuts and fills must be kept in order and any incipient ero-



Three Lane Highway in Richland County

sion checked. Shoulders and slopes must be seeded and sodded for protection and beauty. Weeds along the highway must be kept mowed and destroyed so that they may not spread to adjacent fields and also so that they will not hide guardrails and road signs.

One of the most important divisions of the highway department is the bridge bureau. In the state highway system alone there are over 10,000 bridges. The department contends that 3,500 of these are unsafe or too narrow and need replacement. In this connection the department aims to build 100 new bridges a year, attempting to replace the worst ones first. The program has not been completely carried out because in recent years the public has demanded grade crossing eliminations on our highways and much of the appropriation has been spent in this work.

Twenty-seven years ago, when drivers started out on a trip they could rely only on their luck or knowledge of the roads to get them to their destinations. With the increase in the number of automobiles and the greater distances traveled it was necessary to mark the roads in some manner. With the present system it is virtually impossible for the driver to become lost. For those who are unfamiliar with the roads on which they are traveling it is necessary to erect warning signs for curves, railroads, and cross-roads. Signs are also erected at county lines and at every town. All of this work is supervised by the highway traffic engineer.

On the highways we now have, it is possible to travel to any part of the state without going through mud. Therefore, new roads are not necessary and the real problem is to keep the roads now in existence in the proper state of repair. This maintenance consists of the construction of guard-rails, removing snow and ice, cleaning ditches, cutting weeds, repairing bridges, resurfacing roads, laying dust, widening curves and a number of other things.

A two-phase system of maintenance is in use. Part of the work is done by state employees with state equipment, while most of the larger work is done by contracts let through competitive bidding.

In order to take care of the administration duties of the highway department quite an elaborate organization has been set up. The director of highways is appointed by the governor and under his direction are the various divisions of the department. The central offices are in the State Office Building in Columbus.

The state is divided into twelve divisions, each division averaging eight counties. A division headquarters is located in each division and is supervised by the division engineer. With this set-up the highway department operates most efficiently.

HOUSING

There is a vast amount of unused space in our stadium—space which could readily be converted into dormitories at a fraction of the expenditure required in constructing a conventional type dormitory.

The Tower Club, a cooperative dormitory located in the stadium, has proved unusually successful in its several years of existence. This club has undoubtedly demonstrated to the university an excellent method for solving its housing problem. In this proposed extension several types of interior furnishings could be provided varying with the price range from the very simple to the more luxurious. Of course these dormitories would be open to all male students regardless of academic standing.—R. H. L.